AUTODOC CLUB

How to change engine oil and filter on **Mercedes W211** – replacement guide

VIDEO TUTORIAL

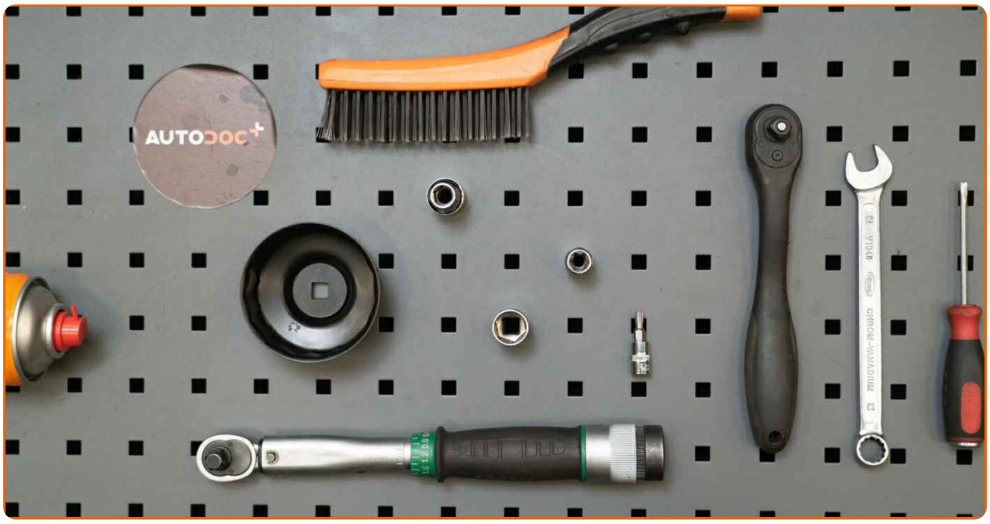


Important!

This replacement procedure can be used for:
MERCEDES-BENZ S-Class Saloon (W221) S 400 Hybrid (221.095, 221.195), MERCEDES-BENZ G-Class Off-Road (W463) G 55 AMG (463.270, 463.271), MERCEDES-BENZ SPRINTER 3,5-t Platform/Chassis (906) 313 CDI 2.2 4x4 (906.131, 906.133, 906.135), MERCEDES-BENZ C-Class T-modell (S203) C 220 CDI (203.208), MERCEDES-BENZ E-Class T-modell (S210) E 270 T CDI, MERCEDES-BENZ E-Class Saloon (W210) E 270 CDI (210.016), MERCEDES-BENZ E-Class Saloon (W210) E 280 (210.063), MERCEDES-BENZ E-Class Saloon (W210) E 280 4-matic (210.081), MERCEDES-BENZ E-Class Saloon (W210) E 320 (210.065), MERCEDES-BENZ E-Class T-modell (S210) E 280 T 4-matic (210.281), MERCEDES-BENZ E-Class T-modell (S210) E 320 T (210.265), MERCEDES-BENZ E-Class T-modell (S210) E 320 T 4-matic (210.282), MERCEDES-BENZ E-Class Saloon (W210) E 320 4-matic (210.082), MERCEDES-BENZ CLK (C208) 320 3.2 (208.365), MERCEDES-BENZ C-Class T-modell (S202) C 240 T (202.086), (+ 426)

The steps may slightly vary depending on the car design.

REPLACEMENT: ENGINE OIL AND FILTER – MERCEDES W211. TOOLS YOU MIGHT NEED:



- Wire brush
- All-purpose cleaning spray
- Torque wrench
- Combination spanner #13
- Torx bit T25
- Drive socket # 10
- Drive socket # E12
- Drive socket # 16
- Oil filter cup socket 76/15F
- Ratchet wrench
- Oil drain pan
- Funnel
- Flat Screwdriver
- Microfibre towel
- Fender cover

Replacement: engine oil and filter – Mercedes W211. AUTODOC experts recommend:

- Replace the oil filter every time when changing motor oil.
- Use only new O-rings during installation.
- Wear gloves to prevent contact with hot liquid.
- Please note: all work on the car – Mercedes W211 – should be done with the engine switched off.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1 Open the hood.



2 Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.



3 Unscrew the engine cover fastener. Use Torx T25. Use a ratchet wrench.



4 Unscrew the fasteners of the back section of the engine cover. Use a drive socket #10. Use a ratchet wrench.



5 Remove the back section of the engine cover.



AUTODOC recommends:

- Replacement: engine oil and filter – Mercedes W211. Do not use excessive force when removing the part as this may damage it.

6

Remove the engine cover.



AUTODOC recommends:

- Raise the engine cover, holding it on two sides simultaneously.
- Replacement: engine oil and filter – Mercedes W211. Do not use excessive force when removing the part as this may damage it.

7

Unscrew the oil filler plug.



8

Lift the car using a jack or place it over an inspection pit.



Replacement: engine oil and filter – Mercedes W211. Professionals recommend:

- The vehicle must be on even keel, and if it is at an angle, the drain plug must be at the lowest point.
- All works should be done with the engine cooled down.

9

Undo the fasteners of the oil pan lower cover. Use a drive socket #10. Use a ratchet wrench.



10

Remove the oil pan cover.



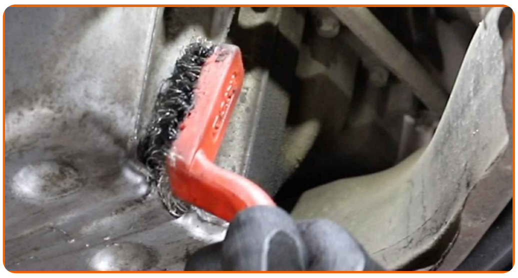
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Put a waste oil container with at least 7 l capacity under the drainage hole.



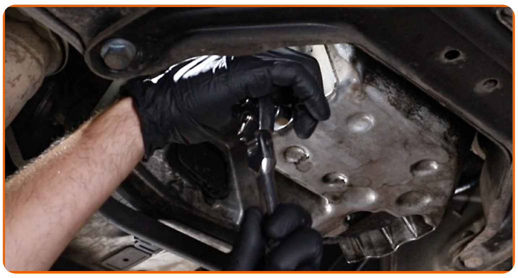
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Clean the area of the oil pan drainage hole. Use a wire brush. Use all-purpose cleaning spray.



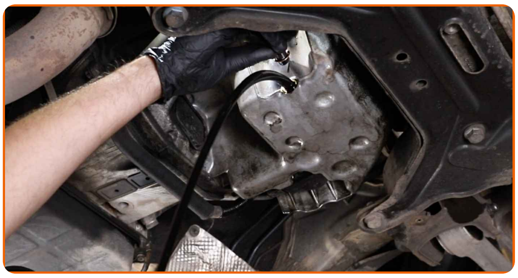
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Unscrew the drain plug. Use a combination spanner #13. Use a drive socket #16. Use a ratchet wrench.



14

Drain the used oil.



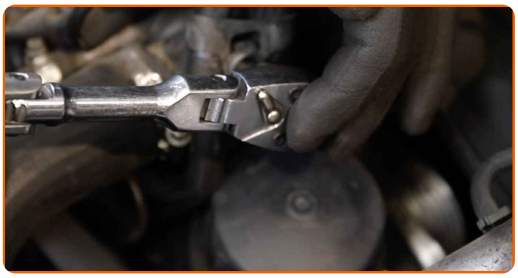
Replacement: engine oil and filter – Mercedes W211. AUTODOC recommends:

- Caution! The oil may be hot.
- Wait until the oil has completely drained from the drainage hole.

15 Clean the oil filter housing cap. Use all-purpose cleaning spray.



16 Unscrew the brackets of the vacuum hose and the hydraulic power steering hose. Use a drive socket #E12. Use a ratchet wrench.



17 Unscrew the filter housing cap together with the old filter element. Use the 76/15F socket. Use a ratchet wrench.



18 Put the old oil filter in the container.



Replacement: engine oil and filter – Mercedes W211. Tip from AUTODOC experts:

- Move up the container. The oil starts to drain out of the drainage hole immediately after you have removed the oil filter.

19 Cover the oil filter housing with a microfibre towel to prevent dirt and foreign objects from getting into the system.

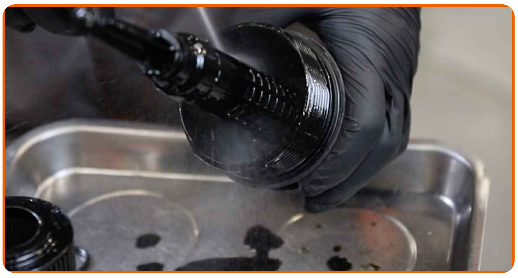
20 Remove old o-rings from the oil filter cover. Use a flat screwdriver.



21 Detach the oil filter from the filter cover. Use a flat screwdriver.



22 Clean the oil filter housing cap. Use all-purpose cleaning spray.



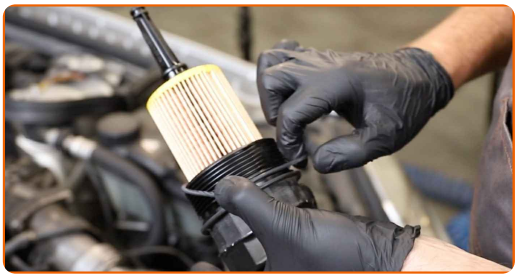
23 Install the new oil filter to the mounting seat on the filter cover.



Please note!

- Make sure to install the filter correctly. Don't mix up the sides of the part.

24 Install new o-rings.

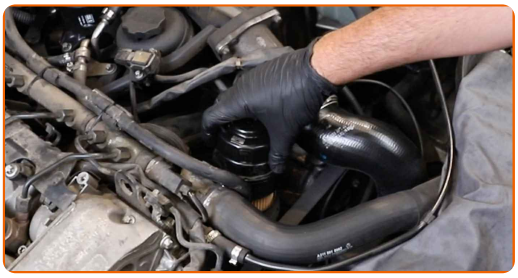


25 Lubricate the rubber seal of the new filter with a little amount of fresh oil.

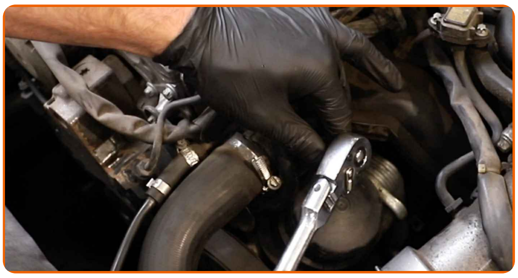


26 Remove the microfibre towel from the oil filter housing.

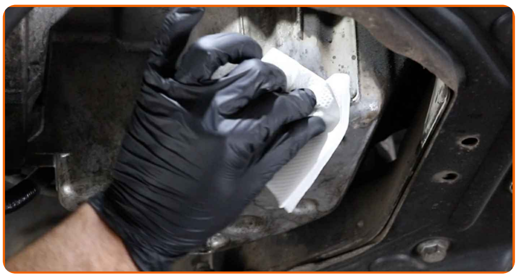
27 Install a new oil filter housing cover and tighten it. Use the 76/15F socket. Use a torque wrench. Tighten it to 25 Nm torque.



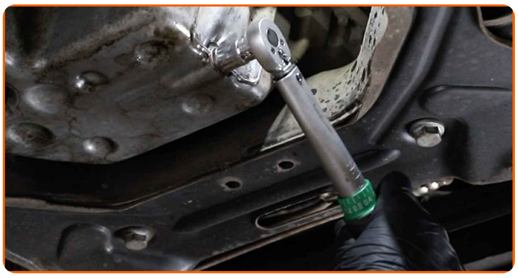
28 Screw in the brackets of the vacuum hose and the hydraulic power steering hose. Use a drive socket #E12. Use a ratchet wrench.



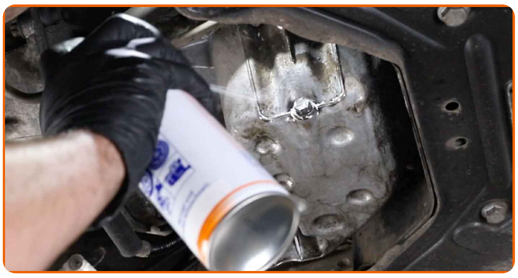
29 Clean the area of the oil pan drainage hole.



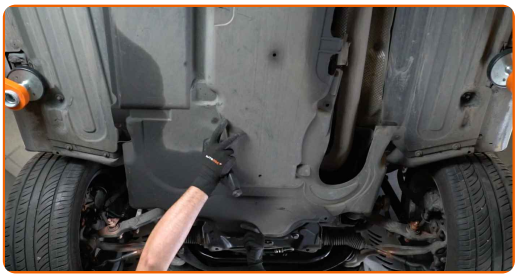
30 Screw in the new drainage plug and tighten it. Use a drive socket #16. Use a torque wrench. Tighten it to 30 Nm torque.



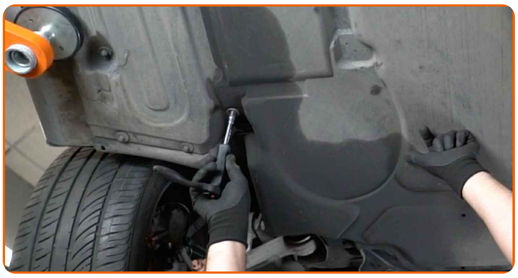
31 Clean the area of the oil pan drainage hole. Use all-purpose cleaning spray.



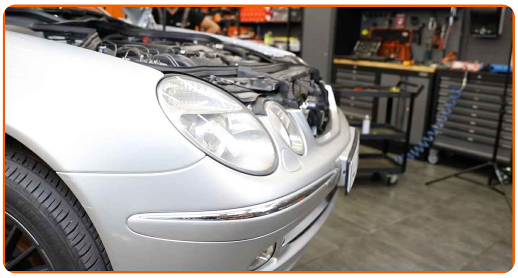
32 Reinstall the oil pan lower cover.



33 Tighten the fasteners of the oil pan lower cover. Use a drive socket #10. Use a ratchet wrench.



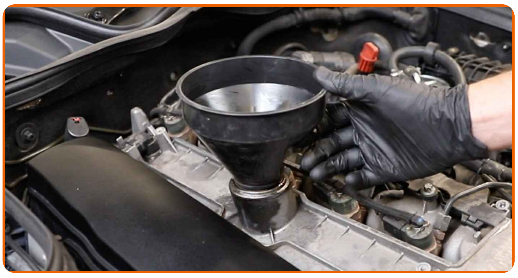
34 Lower the car.



35 Remove the oil filler cap.



36 Insert the funnel.



37 Pour oil into the engine through the filler. Required amount of oil: 6.5 L.



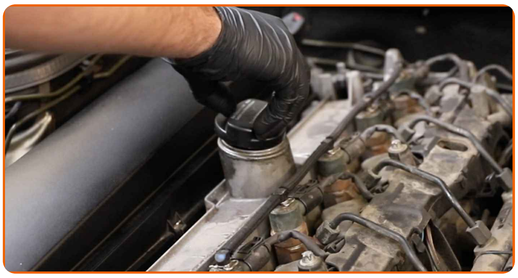
Replacement: engine oil and filter – Mercedes W211. Professionals recommend:

- Use the oil recommended by the manufacturer.

38 Switch on the ignition.

39 Check the oil level using the on-board computer. Top up oil if necessary.

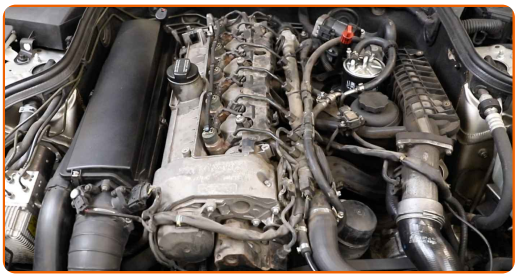
40 Install the oil filler cap.



41 Tighten the oil filler cap.



42 Run the engine for a few minutes. After the oil pressure warning light goes out, stop the engine.



43 Switch off the ignition.

Replacement: engine oil and filter – Mercedes W211. AUTODOC recommends:

- Make sure that the oil filler cap is properly tightened.
- Check the threaded plug of the drainage hole and the oil filter seal for tightness. If necessary, carefully tighten them up.

44 Install the engine cover and secure it.



AUTODOC recommends:

- Replacement: engine oil and filter – Mercedes W211. Do not use excessive force during installation. This may damage the part.

45 Screw in the engine cover fasteners. Use Torx T25. Use a ratchet wrench.



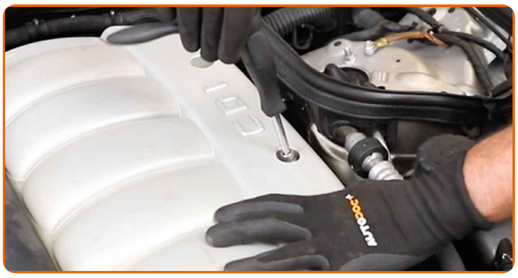
46 Put the back section of the engine cover back in place.



AUTODOC recommends:

- Replacement: engine oil and filter – Mercedes W211. To avoid damaging the part during installation, do not use excessive force.

47 Screw in the fasteners of the back section of the engine cover. Use a drive socket #10. Use a ratchet wrench.



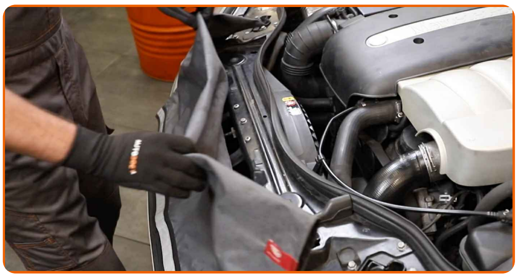
48 Check the oil level using the on-board computer. Top up oil if necessary.



Please note!

- Make sure that the oil filler cap is properly tightened.
- Check the threaded plug of the drainage hole and the oil filter seal for tightness. If necessary, carefully tighten them up.

49 Remove the fender protection cover.



50

Close the hood.



Replacement: engine oil and filter – Mercedes W211. Tip from AUTODOC:

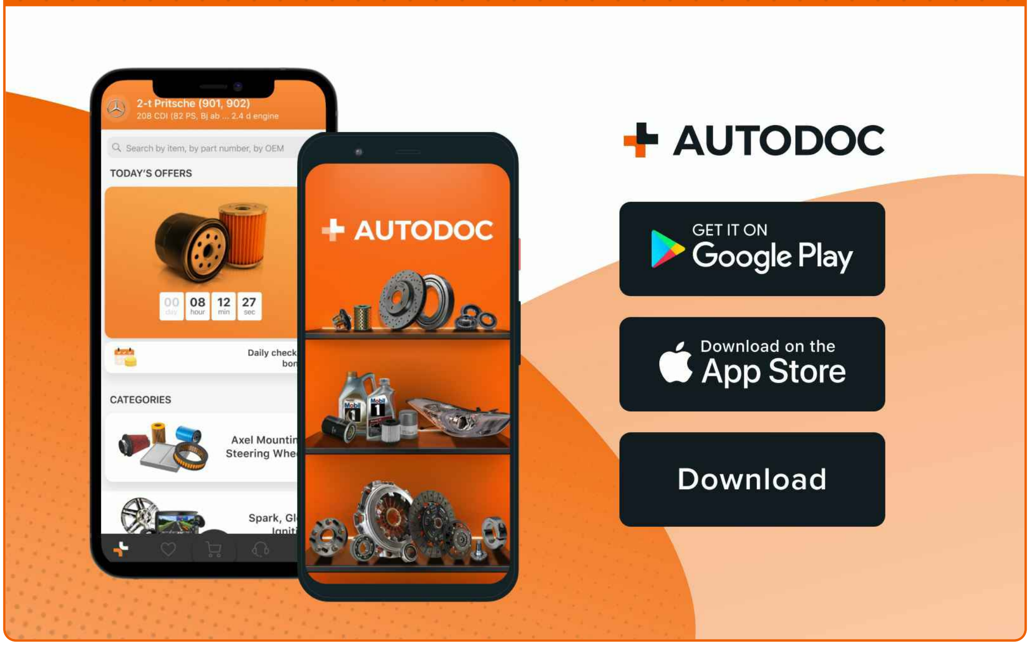
- Note that oil pressure warning light, which indicates insufficient pressure in the lubrication system, may be on for a longer time than usual. After a few seconds, the oil will fill all the channels, and the light will go out.
- To protect the environment from pollution, be sure to dispose of the used filters at special collection points.

WELL DONE!

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